#4

ENTERED

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RAW SEQUENCE LISTING          DATE: 08/01/2000
PATENT APPLICATION:  US/09/343,406    TIME: 11:11:15

Input Set : A:\343406.txt
Output Set: N:\CRF3\08012000\I343406.raw

          SEQUENCE LISTING
 4 (1) GENERAL INFORMATION:
 6      (i) APPLICANT: ENDL, Josef
 7                     STAHL, Peter
 8                     ALBERT, Winfried
 9                     JUNG, Guenther-Gerhard
10                     SCHENDEL, Dolores J.
11                     MEINL, Edgar
12                     DORNMAIR, Klaus
14     (ii) TITLE OF INVENTION: ANTIGEN-SPECIFIC, ACTIVATED T
15                           LYMPHOCYTES, DETECTION AND USE
17    (iii) NUMBER OF SEQUENCES: 39
19     (iv) CORRESPONDENCE ADDRESS:
20           (A) ADDRESSEE: Nikaido, Marmelstein, Murray & Oram LLP
21           (B) STREET: 655 Fifteenth Street N.W. Suite 330
22           (C) CITY: Washington
23           (D) STATE: D.C.
24           (E) COUNTRY: U.S.A.
25           (F) ZIP: 20005-5701
27      (v) COMPUTER READABLE FORM:
28           (A) MEDIUM TYPE: Floppy disk
29           (B) COMPUTER: IBM PC compatible
30           (C) OPERATING SYSTEM: PC-DOS/MS-DOS
31           (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
33     (vi) CURRENT APPLICATION DATA:
34           (A) APPLICATION NUMBER: US/09/343,406
35           (B) FILING DATE: 30-Jun-1999
36           (C) CLASSIFICATION:
52    (vii) PRIOR APPLICATION DATA:
39           (A) APPLICATION NUMBER: 08/967,242
40           (B) FILING DATE: 05-NOV-1997
42           (A) APPLICATION NUMBER: US 08/374,468
43           (B) FILING DATE: 18-JAN-1995
45           (A) APPLICATION NUMBER: DE P 44 01 629.8
46           (B) FILING DATE: 20-JAN-1994
49           (A) APPLICATION NUMBER: DE P 44 03 522.5
50           (B) FILING DATE: 04-FEB-1994
53           (A) APPLICATION NUMBER: DE P 44 18 091.8
54           (B) FILING DATE: 24-MAY-1994
56   (viii) ATTORNEY/AGENT INFORMATION:
57           (A) NAME: Murray, Robert B.
58           (B) REGISTRATION NUMBER: 22,980
59           (C) REFERENCE/DOCKET NUMBER: P564-U5002
61     (ix) TELECOMMUNICATION INFORMATION:
62           (A) TELEPHONE: (202)638-5000
63           (B) TELEFAX: (202)638-4810
66 (2) INFORMATION FOR SEQ ID NO: 1:
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C--> 34
C--> 35

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RAW SEQUENCE LISTING                       DATE: 08/01/2000
PATENT APPLICATION:  US/09/343,406         TIME: 11:11:15

                 Input Set : A:\343406.txt
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  68      (i) SEQUENCE CHARACTERISTICS:
  69           (A) LENGTH: 8 amino acids
  70           (B) TYPE: amino acid
  71           (C) STRANDEDNESS:
  72           (D) TOPOLOGY: linear
  74     (ii) MOLECULE TYPE: peptide
  77     (ix) FEATURE:
  78           (A) NAME/KEY: Peptide
  79           (B) LOCATION: 1
  80           (D) OTHER INFORMATION: /note= "Xaa in position 1 is an
  81 optional sequence selected from 1 to 10 amino acids."
  83     (ix) FEATURE:
  84           (A) NAME/KEY: Peptide
  85           (B) LOCATION: 6
  86           (D) OTHER INFORMATION: /note= "Xaa in position 6 is Thr or Glu."
  88     (ix) FEATURE:
  89           (A) NAME/KEY: Peptide
  90           (B) LOCATION: 8
  91           (D) OTHER INFORMATION: /note= "Xaa in position 8 is
  92 an optional sequence selected from 1 to 8 amino acids."
  95      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
W--> 97      Xaa Pro Glu Val Lys Xaa Lys Xaa
  98      1               5
 100 (2) INFORMATION FOR SEQ ID NO: 2:
 102      (i) SEQUENCE CHARACTERISTICS:
 103           (A) LENGTH: 25 amino acids
 104           (B) TYPE: amino acid
 105           (C) STRANDEDNESS:
 106           (D) TOPOLOGY: linear
 108     (ii) MOLECULE TYPE: peptide
 112     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
 114      Gly Met Ala Ala Leu Pro Arg Leu Ile Ala Phe Thr Ser Glu His Ser
 115      1               5                   10                  15
 117      His Phe Ser Leu Lys Lys Gly Ala Ala
 118                      20                  25
 120 (2) INFORMATION FOR SEQ ID NO: 3:
 122      (i) SEQUENCE CHARACTERISTICS:
 123           (A) LENGTH: 20 amino acids
 124           (B) TYPE: amino acid
 125           (C) STRANDEDNESS:
 126           (D) TOPOLOGY: linear
 128     (ii) MOLECULE TYPE: peptide
 131     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
 133      Glu Arg Gly Lys Met Ile Pro Ser Asp Leu Glu Arg Arg Ile Leu Glu
 134      1               5                   10                  15
 136      Ala Lys Gln Lys
 137                      20
 139 (2) INFORMATION FOR SEQ ID NO: 4:
 141      (i) SEQUENCE CHARACTERISTICS:
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              RAW SEQUENCE LISTING              DATE: 08/01/2000
              PATENT APPLICATION:  US/09/343,406   TIME: 11:11:15

              Input Set : A:\343406.txt
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142              (A) LENGTH: 14 amino acids
143              (B) TYPE: amino acid
144              (C) STRANDEDNESS:
145              (D) TOPOLOGY: linear
147          (ii) MOLECULE TYPE: peptide
150          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
152          Leu Pro Arg Leu Ile Ala Phe Thr Ser Glu His Ser His Phe
153          1             5                 10
155 (2) INFORMATION FOR SEQ ID NO: 5:
157          (i) SEQUENCE CHARACTERISTICS:
158              (A) LENGTH: 20 amino acids
159              (B) TYPE: amino acid
160              (C) STRANDEDNESS:
161              (D) TOPOLOGY: linear
163          (ii) MOLECULE TYPE: peptide
167          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
169          Gly Met Ala Ala Leu Pro Arg Leu Ile Ala Phe Thr Ser Glu His Ser
170          1             5                 10                15
172          His Phe Ser Leu
173                      20
175 (2) INFORMATION FOR SEQ ID NO: 6:
177          (i) SEQUENCE CHARACTERISTICS:
178              (A) LENGTH: 20 amino acids
179              (B) TYPE: amino acid
180              (C) STRANDEDNESS:
181              (D) TOPOLOGY: linear
183          (ii) MOLECULE TYPE: peptide
187          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
189          Ala Leu Pro Arg Leu Ile Ala Phe Thr Ser Glu His Ser His Phe Ser
190          1             5                 10                15
192          Leu Lys Lys Gly
193                      20
195 (2) INFORMATION FOR SEQ ID NO: 7:
197          (i) SEQUENCE CHARACTERISTICS:
198              (A) LENGTH: 20 amino acids
199              (B) TYPE: amino acid
200              (C) STRANDEDNESS:
201              (D) TOPOLOGY: linear
203          (ii) MOLECULE TYPE: peptide
205          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
207          Arg Leu Ile Ala Phe Thr Ser Glu His Ser His Phe Ser Leu Lys Lys
208          1             5                 10                15
210          Gly Ala Ala Ala
211                      20
213 (2) INFORMATION FOR SEQ ID NO: 8:
215          (i) SEQUENCE CHARACTERISTICS:
216              (A) LENGTH: 20 amino acids
217              (B) TYPE: amino acid
218              (C) STRANDEDNESS:
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          Input Set : A:\343406.txt
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219   (D) TOPOLOGY: linear
221   (ii) MOLECULE TYPE: peptide
225   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
227   Pro Glu Val Lys Glu Lys Gly Met Ala Ala Leu Pro Arg Leu Ile Ala
228   1   5   10   15
230   Phe Thr Ser Glu
231   20
233 (2) INFORMATION FOR SEQ ID NO: 9:
235   (i) SEQUENCE CHARACTERISTICS:
236   (A) LENGTH: 18 amino acids
237   (B) TYPE: amino acid
238   (C) STRANDEDNESS:
239   (D) TOPOLOGY: linear
241   (ii) MOLECULE TYPE: peptide
245   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
247   Ala Ala Leu Pro Arg Leu Ile Ala Phe Thr Ser Glu His Ser His Phe
248   1   5   10   15
250   Ser Leu
253 (2) INFORMATION FOR SEQ ID NO: 10:
255   (i) SEQUENCE CHARACTERISTICS:
256   (A) LENGTH: 16 amino acids
257   (B) TYPE: amino acid
258   (C) STRANDEDNESS:
259   (D) TOPOLOGY: linear
261   (ii) MOLECULE TYPE: peptide
265   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
267   Ala Ala Leu Pro Arg Leu Ile Ala Phe Thr Ser Glu His Ser His Phe
268   1   5   10   15
271 (2) INFORMATION FOR SEQ ID NO: 11:
273   (i) SEQUENCE CHARACTERISTICS:
274   (A) LENGTH: 14 amino acids
275   (B) TYPE: amino acid
276   (C) STRANDEDNESS:
277   (D) TOPOLOGY: linear
279   (ii) MOLECULE TYPE: peptide
282   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
284   Ala Ala Leu Pro Arg Leu Ile Ala Phe Thr Ser Glu His Ser
285   1   5   10
287 (2) INFORMATION FOR SEQ ID NO: 12:
289   (i) SEQUENCE CHARACTERISTICS:
290   (A) LENGTH: 12 amino acids
291   (B) TYPE: amino acid
292   (C) STRANDEDNESS:
293   (D) TOPOLOGY: linear
295   (ii) MOLECULE TYPE: peptide
299   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
301   Ala Ala Leu Pro Arg Leu Ile Ala Phe Thr Ser Glu
302   1   5   10
304 (2) INFORMATION FOR SEQ ID NO: 13:

RAW SEQUENCE LISTING   DATE: 08/01/2000
PATENT APPLICATION: US/09/343,406   TIME: 11:11:15

            Input Set : A:\343406.txt
            Output Set: N:\CRF3\08012000\I343406.raw

306   (i) SEQUENCE CHARACTERISTICS:
307   (A) LENGTH: 14 amino acids
308   (B) TYPE: amino acid
309   (C) STRANDEDNESS:
310   (D) TOPOLOGY: linear
312   (ii) MOLECULE TYPE: peptide
316   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
318   Gly Met Ala Ala Leu Pro Arg Leu Ile Ala Phe Thr Ser Glu
319   1   5   10
321 (2) INFORMATION FOR SEQ ID NO: 14:
323   (i) SEQUENCE CHARACTERISTICS:
324   (A) LENGTH: 12 amino acids
325   (B) TYPE: amino acid
326   (C) STRANDEDNESS:
327   (D) TOPOLOGY: linear
329   (ii) MOLECULE TYPE: peptide
333   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:
335   Gly Met Ala Ala Leu Pro Arg Leu Ile Ala Phe Thr
336   1   5   10
338 (2) INFORMATION FOR SEQ ID NO: 15:
340   (i) SEQUENCE CHARACTERISTICS:
341   (A) LENGTH: 18 amino acids
342   (B) TYPE: amino acid
343   (C) STRANDEDNESS:
344   (D) TOPOLOGY: linear
346   (ii) MOLECULE TYPE: peptide
349   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:
351   Leu Pro Arg Leu Ile Ala Phe Thr Ser Glu His Ser His Phe Ser Leu
352   1   5   10   15
354   Lys Lys
357 (2) INFORMATION FOR SEQ ID NO: 16:
359   (i) SEQUENCE CHARACTERISTICS:
360   (A) LENGTH: 14 amino acids
361   (B) TYPE: amino acid
362   (C) STRANDEDNESS:
363   (D) TOPOLOGY: linear
365   (ii) MOLECULE TYPE: peptide
369   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:
371   .Arg Leu Ile Ala Phe Thr Ser Glu His Ser His Phe Ser Leu
372   1   5   10
374 (2) INFORMATION FOR SEQ ID NO: 17:
376   (i) SEQUENCE CHARACTERISTICS:
377   (A) LENGTH: 14 amino acids
378   (B) TYPE: amino acid
379   (C) STRANDEDNESS:
380   (D) TOPOLOGY: linear
382   (ii) MOLECULE TYPE: peptide
386   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:
388   Leu Pro Arg Leu Ile Ala Phe Thr Ser Glu His Ser His Phe

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                    VERIFICATION SUMMARY              DATE: 08/01/2000
                    PATENT APPLICATION:   US/09/343,406    TIME: 11:11:16

                    Input Set : A:\343406.txt
                    Output Set: N:\CRF3\08012000\I343406.raw

L:34 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:35 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:97 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
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